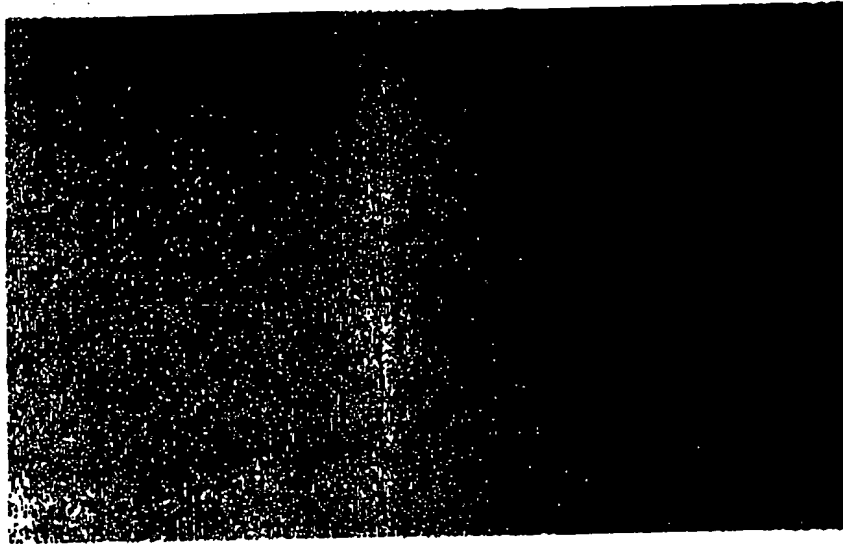
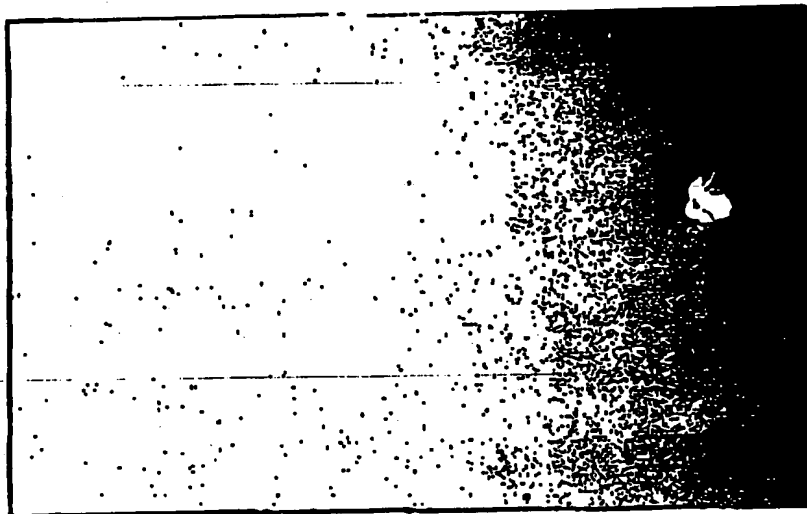


FIG. 5



SURFACE MORPHOLOGY B (250 μm \times 190 μm)

FIG. 6



SURFACE MORPHOLOGY A (250 μm \times 190 μm)

FIG. 7

OFF ANGLE BETWEEN NORMAL LINE ON SURFACE OF ZrB_2 SUBSTRATE
 AND $[0001]$ AXIS, AND SURFACE MORPHOLOGY

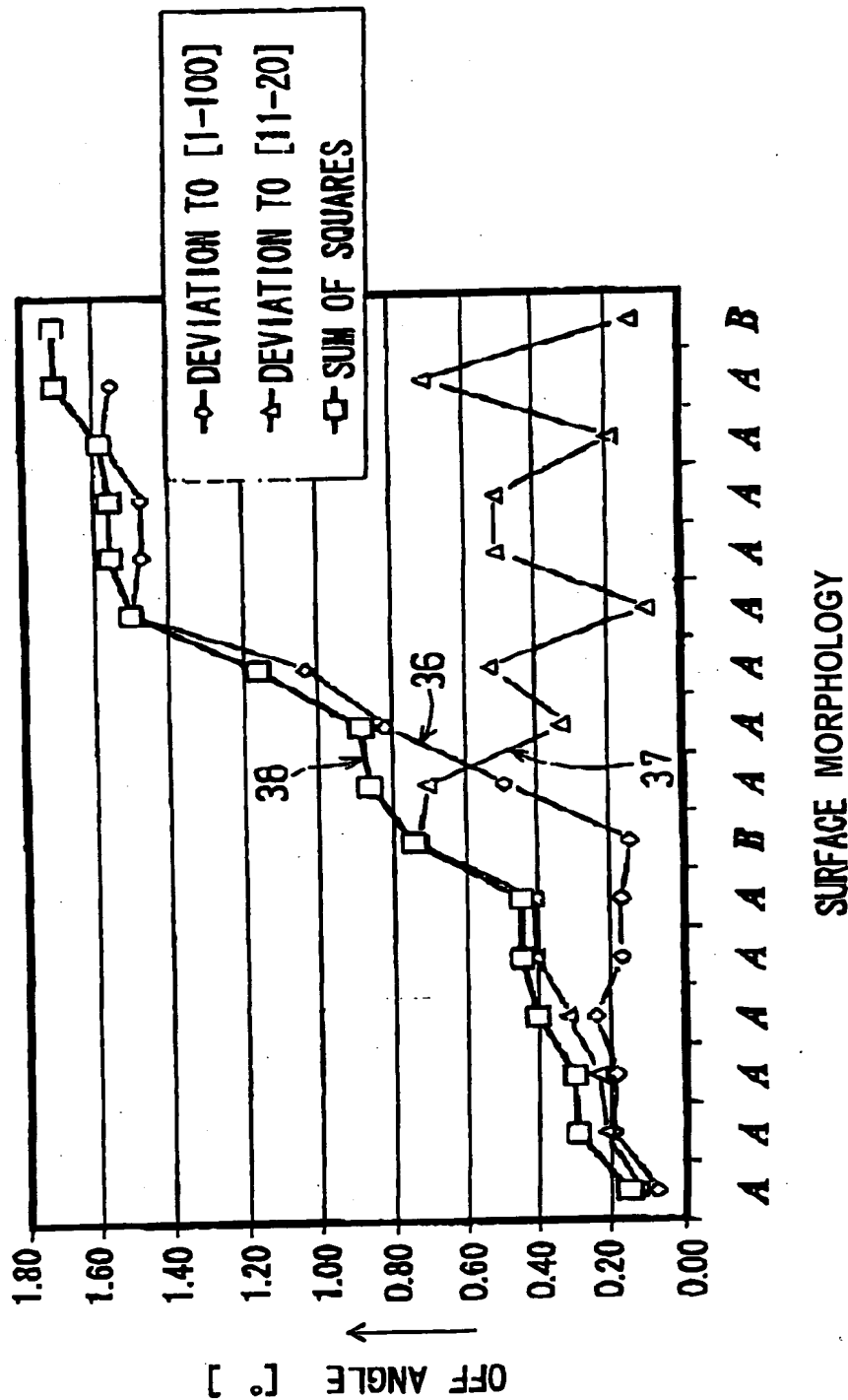
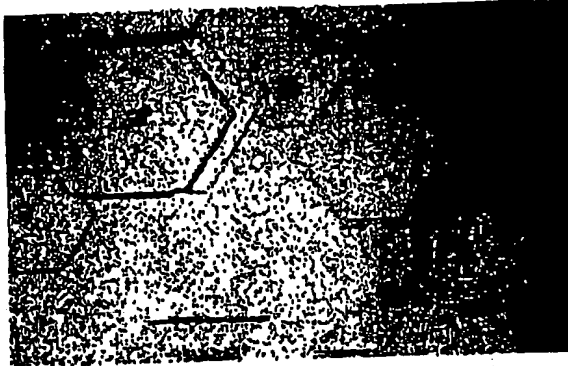


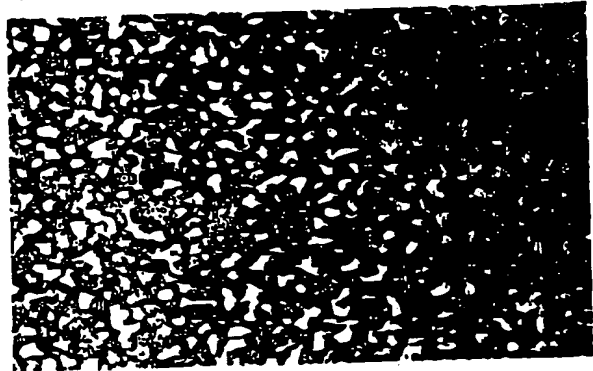
FIG. 9

(5)

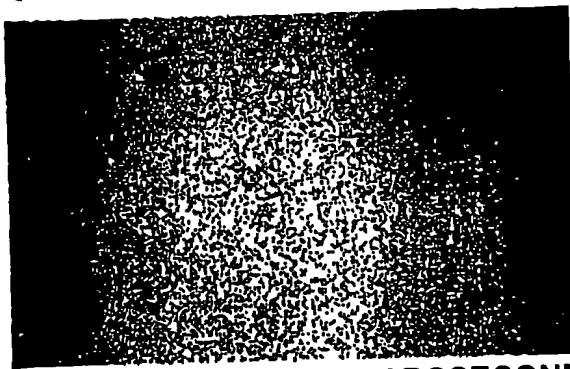


1100°C OR MORE 0.25 873 ARCSECONDS 400°C 0.8 —

(1)

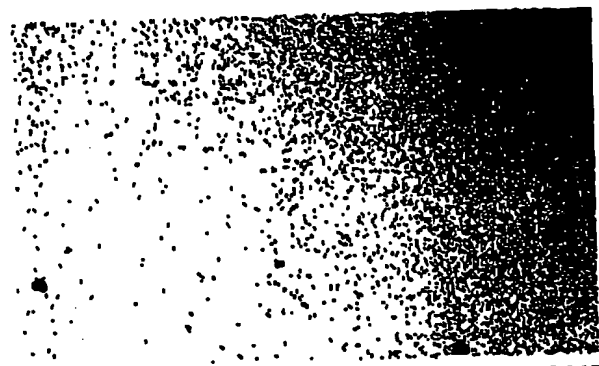


(2)



725°C 0.6 760 ARCSECONDS

(3)



850°C 0.5 596 ARCSECONDS

(4)



925°C 0.4 —

FIG. 10

RELATION BETWEEN FILM THICKNESS OF
 $(\text{AlN})_x(\text{GaN})_{1-x}$ AND X-RAY FWHM (TILT)

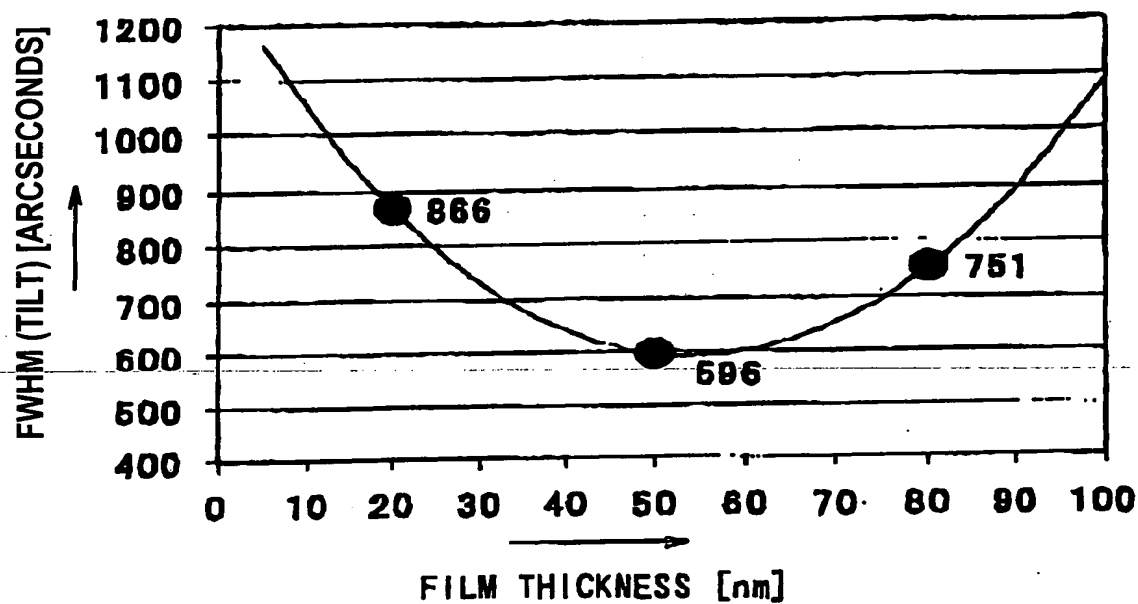


FIG. 11

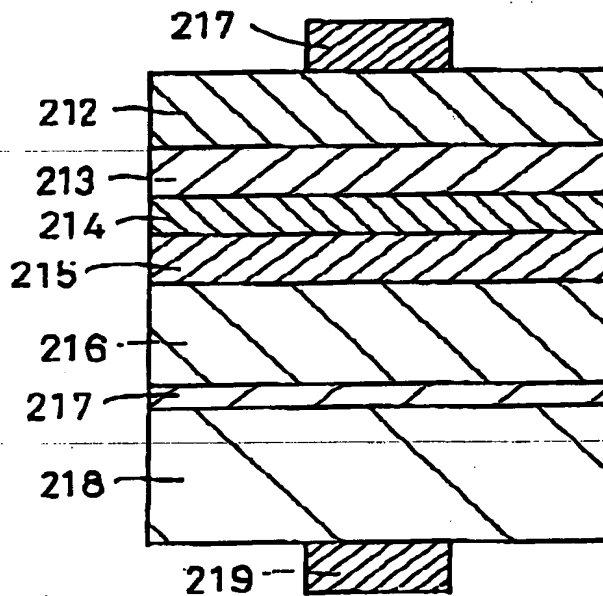


FIG. 12

RELATION BETWEEN OFF ANGLE OF NORMAL LINE OF SURFACE OF ZrB_2 SUBSTRATE FROM [0001] CRYSTAL AXIS AND SURFACE MORPHOLOGY OF GaN EPITAXY FILM

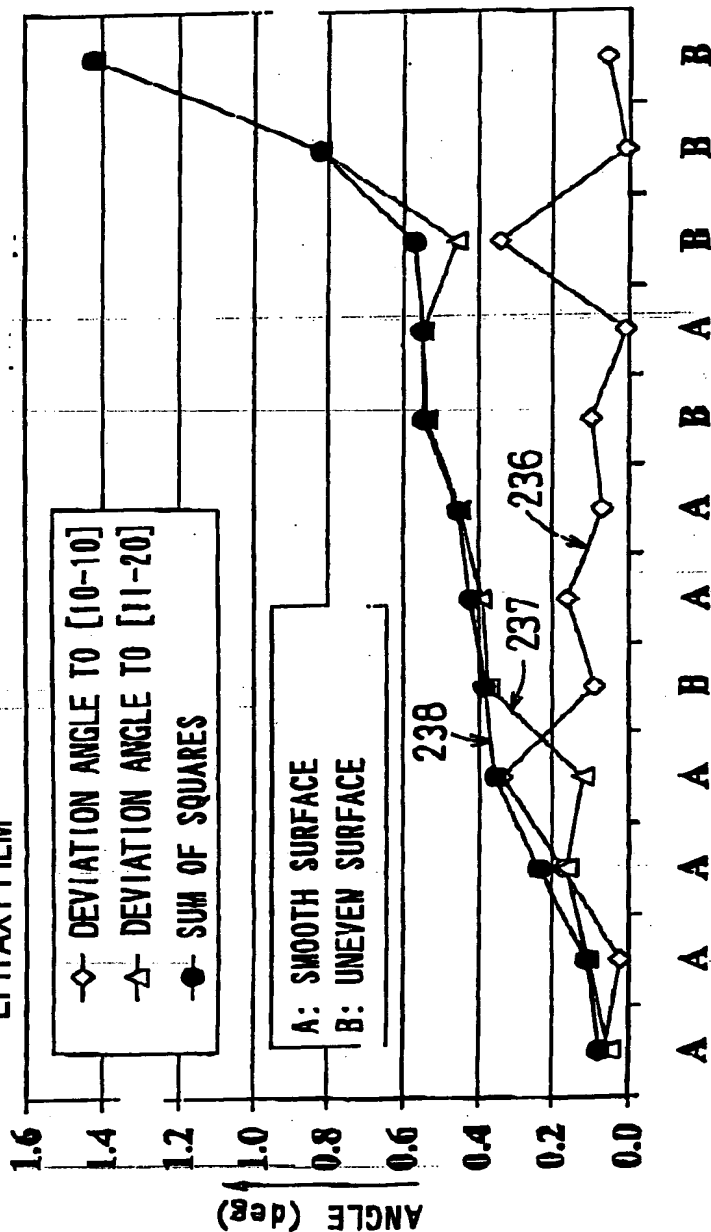
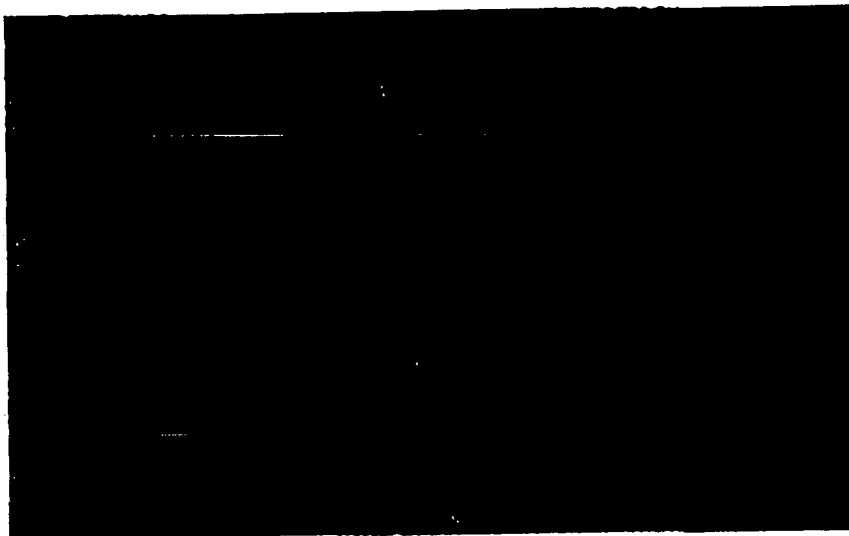


FIG. 13



SURFACE MORPHOLOGY B (250 μm \times 190 μm)

FIG. 14



SURFACE MORPHOLOGY A (250 μm \times 190 μm)

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.